PROJECT REPORT

Using Depth First Search Algorithm For Travelling Salesman Problem

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COMPUTER SCIENCE FACULTY

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APPROVAL AND RATIFICATION PAGE

PROJECT REPORT

Depth First Search Algorithm For Travelling Salesman Problem

This Project report already approved and ratified by Dean of Faculty Computer Science and Supervisor on 12 December 2009

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STATEMENT OF ORIGINALITY

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Here by certify that this project was made by myself and not copy or plagiarizes from other people, expect that in writing expressed to the other article.
If it is proven that this project was plagiarizes or copy the other, I'm ready to accept a sanction.

Semarang, 12 December 2009

Ivan Tirta Wijaya
05.02.0028

FOREWORD

Finally, I can finish my final project that have title : ***Depth First Search Algorithm For Travelling Salesman Problem***. So in this opportunity, I would like to thanks :

•My Lord and my saviour, Jesus Christ that give me blessing.

•My parents, Herianto Sadarmo and Lie Moei San.

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•All of my friends, Bayu, Roy, Stephen, Frengky, Indra, Fredy, and many more.

Last, I would like to apologize if I made mistakes in finishing the project and writing this report. Therefore, critics and suggestions are expected.

Semarang, 12 December 2009

Ivan Tirta Wijaya

ABSTRACTION

Traveling Salesman Problem is one of the most intensively studied problems in computational mathematics. Travelling Salesman problem is a problem in combinatorial optimization studied in operations research and theoretical computer science. Given a list of cities and their pairwise distances, the task is to find a shortest possible tour that visits each city exactly once. Travelling Salesman Problem was invented by Hassler Whitney at Princeton. In the 1950s and 1960s, the problem became increasingly popular in scientific circles in Europe and the USA. These problems will be solved with depth first search algorithm and using tree data structures. Depth First Search is a general algorithm for finding optimal solutions of various optimization problems, especially in discrete and combinatorial optimization.

Keywords : Travelling Salesman Problem, Depth First Search Algorithm

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